

To: Director and Laboratory Staff  
From: Survey and Appraisal Section  
Subject: SURVEY NOTES

## F A R M   S I T U A T I O N

ECONOMIC ACTIVITY SLACKENS. PRICES OF FARM PRODUCTS DECLINE; PRICES OF NON-FARM PRODUCTS DO NOT

Although economic activity continues at a high level, there has been some easing off from earlier records. Industrial production has slackened a little, partly reflecting reduced demand for some consumer goods. Unemployment rose more sharply from December to January than in any month since the end of the war. Employment, after a somewhat more than seasonal drop, was still higher than in January 1948. Since mid-August, prices of farm products have dropped 6 percent and foods 15 percent, but the index of non-agricultural commodities has been practically unchanged. Demand and Price Situation, Feb. 13, 1949, p. 1.

(Keyserling, one of the President's economic advisers, noted that industrial prices have risen much more than farm prices since 1946; that a weakness in economic picture might develop because of this situation.)

The business news continues to give evidence of hesitation and slackening...Hopes of a substantial increase in new orders after the holidays have not been realized, although there have been some good reports. It would be premature to characterize as "general" a recession which is not cutting production of steel or, with very minor exceptions, of automobiles, utility and railway equipment, or of most non-ferrous metals.

Monthly Letter of National City Bank of New York, February 1949, p.1.

## C O T T O N   L I N T

MILL MARGINS NOW ONLY HALF WHAT THEY WERE YEAR AGO

Cotton mill margins (difference between cloth prices and raw cotton prices) have dropped 50 percent since a year ago. Cotton prices have been rising during the last three months.

Table 1.- Prices of raw cotton, rayon staple and cotton fabrics, and cotton mill margins in cents.

	:Feb. 15:	Jan. :	Dec. :	Jan. :	Average
	: 1949 :	: 1949 :	: 1948 :	: 1948 :	: 1945
Cotton, Middling 15/16"	:	:	:	:	:
delivered at mills, lb.....	34.36	34.15	33.74	36.45	23.76
Rayon, viscose staple,	:	:	:	:	:
equivalent price 1/, lb.....	32.90	32.90	32.90	32.04	22.25
Cotton fabrics, average 17 constructions,	:	:	:	:	:
Price for cloth from 1 lb. of cotton 2/.	-	65.04	65.78	99.25	43.21
Mill margin 3/.....	-	32.78	33.98	64.31	20.86
Sheeting, 37" 4.00, yd. 4/.....	16.50	16.50	16.50	22.50	11.10
Osnaburg, 36" 2.35, yd. 4/.....	21.25	21.25	21.25	23.25	14.89
Printcloth, 38-1/2" 5.35, yd. 4/.....	15.00	15.00	15.00	22.00	9.60

1/ Cost to mill of same amount of usable fiber as supplied by one pound of cotton (rayon price x.89).

2/ Price of approximate quantity of cloth obtainable from a pound of cotton with adjustments for saleable wastes (Cotton Branch, PMA).

3/ Difference between cloth prices and prices (10-market average) of cotton assumed to be used in each kind of cloth (Cotton Branch, PMA).

4/ From Daily Mill Stock Reporter and Daily News Record.



Table 2.- Average estimated quantities of fibers made available for use annually by ultimate consumers 1/ in the United States during designated periods, 1892-1944 and annual totals for 1940-48

Period 2/	Cotton	Wool 3/	Silk	Flax	Rayon	Other synthetic fibers 4/	Sub-total	Jute	Hard fibers 5/	Hemp	Grand total
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
1892-94	1,176	254	12	39		1,481	304	228	19		2,032
1895-99	1,429	287	15	43		1,774	412	246	22		2,454
1900-04	1,801	240	21	50		2,112	524	324	20		2,980
1905-09	2,239	276	26	55		2,596	647	338	23		3,604
1910-14	2,373	318	35	71	3	2,800	712	412	24		3,948
1915-19	2,364	404	50	41	7	3,366	671	512	25		4,574
1920-24	2,691	418	60	39	26	3,234	776	413	16		4,439
1925-29	3,091	406	90	49	91	3,727	912	456	8		5,103
1930-34	2,566	302	78	39	169	3,154	649	382	3		4,188
1935-39	3,203	417	65	41	331	4,057	775	453	3		5,288
1940-44	4,754	602	14	21	596	6,012	613	552	45		7,222
1940	3,837	443	48	25	471	4,828	667	514	2		6,011
1941	4,947	692	25	20	571	6,267	796	754	10		7,827
1942	5,420	645	6/	31	607	6,727	426	492	19		7,664
1943	5,049	631	6/	17	644	6,378	617	496	141		7,632
1944	4,516	600	6/	12	687	5,861	560	511	52		6,984
1945	4,303	644	2	14	744	5,756	538	514	7		6,815
1946	4,492	735	16	31	829	6,156	759	419	5		7,339
1947	4,049	702	4	19	892	5,716	688	523	5		6,932
1948 7/	4,108	718	11	14	1,067	5,988	737	425	3		7,153

1/ Consumption of raw fiber plus additions and minus subtractions for imports and exports of fiber manufactures.

2/ Fiscal years ending June 30, 1892-1917, except for cotton which is given for years ending August 31, 1892-1913 and rayon which is given for calendar years, 1911-17; calendar years, 1918-48.

3/ Wool and similar fibers including mohair, camels hair, etc. Scoured equivalent weights.

4/ Includes nylon, Aralac, Saran, Vinyon, and Fiberglas. Consumption before 1940 was inconsequential.

5/ Including abaca (Manila fiber), sisal, henequen, istle (Tampico fiber), phormium (New Zealand hemp), and cantala. Includes also sumu, a soft fiber used for same purposes generally as hard fibers.

6/ Less than 500,000 pounds.

7/ Preliminary.



Table 3.- Fibers made available for use by ultimate consumers in the United States during designated periods, 1892-1948, in percentages of the total <sup>1/</sup>

Period <sup>2/</sup>	Cotton	Wool	Silk	Flax	Rayon	Other synthetic fibers	Sub-total	Jute	Hard fibers	Hemp	Total all fibers
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1892-94	57.9	12.5	0.6	1.9			72.9	15.0	11.2	0.9	100.0
1895-99	58.2	11.7	0.6	1.8			72.3	16.8	10.0	0.9	100.0
1900-04	60.4	8.1	0.7	1.7			70.9	17.6	10.9	0.6	100.0
1905-09	62.1	7.7	0.7	1.5			72.0	18.0	9.4	0.6	100.0
1910-14	60.1	8.1	0.9	1.8	0.1		71.0	18.0	10.4	0.6	100.0
1915-19	62.6	8.8	1.1	0.9	0.2		73.6	14.7	11.2	0.5	100.0
1920-24	60.6	9.4	1.4	0.9	0.6		72.9	17.5	9.3	0.3	100.0
1925-29	60.6	8.0	1.7	0.9	1.8		73.0	17.9	8.9	0.2	100.0
1930-34	61.3	7.2	1.9	0.9	4.0		75.3	15.5	9.1	0.1	100.0
1935-39	60.6	7.9	1.2	0.8	6.2		76.7	14.6	8.6	0.1	100.0
1940-44	65.8	8.3	0.2	0.3	8.2	0.4	83.2	8.6	7.6	0.6	100.0
1940	63.8	7.4	0.8	0.4	7.8	0.1	80.3	11.1	8.6	3/	100.0
1941	63.2	8.8	0.3	0.3	7.3	0.2	80.1	10.2	9.6	0.1	100.0
1942	70.8	8.4	3/	0.4	7.9	0.3	87.8	5.6	6.4	0.2	100.0
1943	66.2	8.3	3/	0.2	8.4	0.5	83.6	8.1	6.5	1.8	100.0
1944	64.7	8.6	3/	0.2	9.8	0.7	84.0	8.0	7.3	0.7	100.0
1945	63.1	9.5	3/	0.2	10.9	0.7	84.4	7.9	7.6	0.1	100.0
1946	61.2	10.0	0.2	0.4	11.3	0.7	83.8	10.4	5.7	0.1	100.0
1947	58.4	10.1	0.1	0.3	12.9	0.7	82.5	9.9	7.5	0.1	100.0
1948 <sup>4/</sup>	57.4	10.0	0.2	0.2	14.9	1.0	83.7	10.3	6.0	3/	100.0

<sup>1/</sup> Based on table 2.

<sup>2/</sup> Calendar years, 1918-48, fiscal years ending June 30, 1892-1917, except for cotton which is given for years ending August 31, 1892-1913, and rayon which is given for calendar years 1911-17.

<sup>3/</sup> Less than .05 percent.

<sup>4/</sup> Preliminary.



# TRENDS IN CONSUMPTION OF FIBERS—1948 FIGURES

Mill consumption of cotton in 1948 totaled 9,340,000 500-pound bales, about 500,000 bales less than in 1947. This decline was more than accounted for by a drop in exports of cotton goods, which fell off from the equivalent of 1,429,000 bales in 1947 to the equivalent of 810,000 bales in 1948. It is notable that in 1948, the quantity of cotton consumed to make goods for domestic U. S. consumers was slightly higher than in 1947. In other words, the decline in mill consumption of cotton in 1948 was due to a decline in exports of cotton goods, not to a decline in the domestic market. The quantity of cotton thus "made available for ultimate consumers" per capita was 28.0 pounds in 1948, comparing with 28.4 pounds in 1947, an average of 35.2 pounds during 1940-44, and 24.8 prewar during 1935-39 (table 4).

As noted in table 2, consumption of fibers by ultimate consumers (mill consumption with adjustments for imports and exports of manufactured fiber goods) was slightly larger in 1948 than in 1947, with cotton, wool, silk, rayon, other synthetics, and jute making gains, but with hard fibers declining. Cotton's percentage of total fiber consumption declined further to 57.4 percent, compared to 58.4 percent in 1947, 65.8 percent in 1940-44, and 60.6 percent in 1935-39. Rayon's percentage has continuously climbed from 6.2 percent in 1935-39 to 14.9 percent in 1948.

Table 4.— Mill consumption of raw cotton, raw cotton equivalent of principal exports and imports of cotton manufactures, and approximate quantities of cotton made available for ultimate consumers in the United States, 1925-1948

Calendar year	: Mill consumption	: Cotton manufactures		: Available for	
		: raw cotton equivalent		consumers <sup>1/</sup>	
		: Exports	: Imports	: Total	: Per capita
	: 1,000	: 1,000	: 1,000	: 1,000	: Pounds
	: <u>bales</u>	: <u>bales</u>	: <u>bales</u>	: <u>bales</u>	
Average:					
1925-29.....	16,857.5	478.2	61.0	6,440.3	26.0
1930-34.....	5,597.5	290.5	38.5	5,345.5	20.6
1935-39.....	6,834.0	250.3	90.0	6,673.7	24.8
1940-44.....	10,338.6	474.1	39.4	9,903.9	35.2
1945 2/.....	9,442.9	523.9	45.8	8,964.8	30.8
1946 2/.....	10,048.3	721.5	31.9	9,358.7	31.8
1947 2/.....	9,849.2	1,429.2	15.0	8,435.0	28.4
1948 2/.....	9,340.0	809.8	27.3	8,557.5	28.0

Bales are 500-pound gross bales.

<sup>1/</sup> Mill consumption less raw cotton equivalent of exports of cotton manufactures and less raw cotton equivalent of imports.

<sup>2/</sup> Data for other than mill consumption are preliminary.



## COTTON CONSUMPTION OFF 9 PERCENT

Mill consumption of cotton during the six months ending August was 9 percent below the same period last year. Loans on more than 4-1/2 million bales of 1948 cotton had been made by C. C. C. as of February 10. December exports of 522,000 bales were largest since February 1940.

Weekly Cotton Market Review, PMA, Feb. 18, 1949.

Table 5.- Cotton consumption and stocks, and spindle hours in cotton mills

	January 1949	December 1948	November 1948	January 1948
Consumption, bales.....	674,463	680,670	685,168	860,202
On hand, 1,000 bales.....	9,840	10,461	10,089	7,339
Active spindle hours, billions..		8.5	8.7	10.8
Spindle activity, percent of 80-hour capacity 1/.....		104.1	111.9	139.0

1/ Includes activity on fibers other than cotton, totaling 0.6 to 0.7 billion spindle hours for each month shown.

From Census reports.

## INCREASED COTTON ACREAGE EXPECTED IN 1949

The 1949 cotton acreage guessing contest has begun. Everyone is agreed that it will be greater than last year's 23,653,000 acres. Some say 24 million, some 25, a few put down 26 million, and still fewer say 30 million. The Government will be requested to support this crop, no matter how much is planted. In the meantime, prices for other farm commodities have been dropping.

Cotton Trade Journal, Feb. 11, 1949, p.2.

## COTTON TEXTILE INDUSTRY AND EQUIPMENT

### NEW TYPE COTTON PICKER TO GO ON SALE IN MARCH

Riley E. Ellis, a Griffin, Georgia machine shop operator, has invented a new mechanical cotton picker, which has been patented in this nation and in foreign countries. The picker is compact, weighing about 650 pounds, and can be attached to any tractor. It is said to be able to pick cotton in areas which other pickers have been unable to reach. The machine will pick one and one-fourth acres of cotton an hour, picking 98 to 99 percent of all cotton. First units of the new picker, called the Ellis cotton picker, are expected to be available in March. The first machines will be shipped to South America for distribution through established agencies. The machine will be made in Griffin.

Southern Textile News, Jan. 22, 1949, p. 2.

A new lint cleaning machine for gins has been developed by Hardwicke-Etter Co., Sherman, Texas, in cooperation with engineers of Stoneville Experiment Station.

Cotton Trade Journal, Feb. 11, 1949, p. 5.

A new lint cleaner, developed by Continental Gin Co., will be available for the 1949 season. Field tested since 1945, it is said to raise the grade one to two points. George W. Woodruff, chairman of the Board, said a similar machine now has been developed by the U. S. Department of Agriculture.

Southern Textile News, Feb. 12, 1949, p. 12.



#### DANES DEVELOP NEW TYING-IN MACHINE

Among the many kinds of machinery exported by Denmark is a very interesting little tying machine which can tie over 18,000 knots in an hour, according to an article in the current issue of the Danish Foreign Office Journal. It is used in weaving mills. Each time a beam of yarn is used up, every thread on it, and there may be 20,000 of them, has to be tied to the corresponding thread on the new beam. While this work is in progress the loom is idle and gives no output. The tying was formerly done by hand, and as the maximum number of knots that could be tied in an hour was 1,000 to 1,400, it wasted a good deal of time and looms were stopped for hours at a time.

Journal of Commerce, Jan. 17, 1949, p. 10.

#### NEW COTTON AND RAMIE MILL TO BE BUILT IN SAN JOAQUIN VALLEY

W. E. Clayton, president of International Ramie Co., of San Francisco, has announced that a new \$2 million textile mill, Clayton Textile Mills, will be built at Fowler in the San Joaquin Valley. Its 11,616 spindles and 185 looms will handle 36,000 pounds of California cotton and 6,000 pounds of ramie a week. Initial weekly production will be 35,000 yards of cotton broadcloth and "light cloth," 17,500 yards of dress goods, and 4,000 ramie bed sheets. It will employ a "Hi-Draft" system invented by Elwin H. Rooney, consultant to International Ramie, that can handle both cotton and ramie fiber. All machinery will be built on the Pacific Coast. Mr. Clayton said commercial growing of ramie in the San Joaquin Valley, sponsored by the company, is successful but demand for ramie will be so great that large foreign growers have been contacted.

Wall Street Journal, Jan. 24, 1949, p. 6.

(Earlier article, see November Survey Notes, made no mention of using cotton. Advisability of building looms on the Pacific Coast might be questioned. The article said this would be California's first textile mill, which is not the case).

#### LARGEST COTTON MILL WEST OF MISSISSIPPI EXPANDS

Largest cotton mill west of the Mississippi is Commander Mills, Sand Springs, Oklahoma. The mill has 53,206 spindles and 1,045 looms and recently has installed the continuous peroxide bleaching process. Sheets and pillow cases are made in a sewing department. It is operated by Hesslein & Co., but belongs to a trust foundation. It currently is in the midst of a \$2,000,000 expansion and modernization program.

Textile Age, Jan. 1949, p. 69.

#### TEXTILE MACHINERY PRODUCTION 10 PERCENT UNDER PEAK YEARS

Production schedules across the industry were cut during the latter months of 1948 and continued to decline during the past months. This does not mean that there will be further reductions in the immediate future unless there is a drastic decline in new orders. Two principal reasons were given for the end of the big boom in textile machinery, (1) the full volume of foreign business which was expected as a result indirectly from E.C.A. aid to Western European countries failed to fully develop last year, (2) there was a dry-up of domestic business late in the year as the slump in key textile lines tended to cause mills to hold back expansion and improvement plans. Unless there is an unexpectedly broad outflow of money from abroad this year to be spent on textile equipment, the machinery industry will get no substantial uplift from this quarter. It is thought,



however, that foreign demand for ECA foodstuffs will decline this year due to larger foreign crops. In that event, more ECA funds could be spent on capital goods of which textile machinery will form a large portion.

Journal of Commerce, Jan. 31, 1949.

#### PEPPERELL DISCONTINUES COTTON DIVISION AT FALL RIVER PLANT

Expansion of rayon weaving production at the Pepperell Manufacturing Company plant at Fall River, Massachusetts was announced this week. A company statement said the cotton division would be discontinued and rayon and nylon weaving substituted. Operations at present are about evenly divided between cotton and synthetic fibers. Cotton fabrics now made here will be manufactured in the company's mills elsewhere.

Southern Textile News, Jan. 22, 1949, p. 3.

#### OUTPUT PER MAN-HOUR IN COTTON TEXTILE INDUSTRY BELOW PREWAR

Average hourly earnings in the cotton textile industry were \$1.125, highest in history, comparing with 68 cents in 1945 and 41 cents in 1940. The industry's output per man-hour is "not only below the 1939 level but also that of 1936." In the latter year, 1.89 pounds of cotton were consumed per man-hour as compared with 1.76 pounds during the first nine months of 1948, a decrease of 6.9 percent. During the same period, yards of cloth produced per man-hour decreased from 10.66 to 9.26, or about 13 percent; and spindle hours per man-hour decreased from 122.0 to 120.6, approximately 1 percent.

Cotton Textile Hi-Lights, Jan. 1949, p. 1.

(In contrast, according to a study made at SRRL, output of rayon per man-hour in the rayon industry is 94 percent greater than in 1939, completely offsetting greatly increased wage rates.)

#### COTTON PRODUCTS

##### COTTON REPORTED IMMUNE TO SILVERFISH

Experiments have been made by Laibach (Textilber., 1948, 29, 397) in which he discloses the reaction of silverfish to cotton, and viscose, cuprammonium, and acetate rayons. The silverfish attacked the viscose and cuprammonium rayon fabrics but the cotton and acetate remained completely unattacked, even after prolonged exposure to the silverfish. It was found that by steeping cotton in dilute acid (hydrochloric acid) produced sufficient change to render the cotton edible to the silverfish. Acid-treated cotton fabrics were thus found to be susceptible to attack. In some experiments it was found that the minimum acid treatment sufficient to produce the necessary modification of the cotton was a steeping for one day at 60° C. in a mixture of 7 cc. of concentrated hydrochloric acid and 993 cc. of water.

Textile Mercury and Argus, Jan. 14, 1949, p. 59.

##### AUTOMOBILE INDUSTRY: CHRYSLER TO USE NYLON

Chrysler Corp. will spend \$70,000,000 for textiles this year. They will use all nylon fabric in Chrysler Windsor and New Yorker sedans with nylon-faced materials available for interior trim on Chrysler and Plymouth convertibles. Nylon fabrics used withstood fade-ometer and frictionaire wear tests which indicate they will last the normal lifetime of a car.

Journal of Commerce, Jan. 28, 1949, p. 14.



#### AUTOMOBILE INDUSTRY: FORD ESTIMATES \$40,000,000 NEED FOR RAW TEXTILE MATERIALS

The Ford Motor Co. will spend approximately 40 million dollars for raw textiles during 1949, according to Ray Farough, senior buyer of the company's textile group. Approximately the same amount was spent in 1948. About 75 percent will be spent on upholstery fabrics alone. The remaining 24 percent will be used in buying other essential automobile trim materials such as cotton padding, etc. The upholstery fabrics range from 30 to 60 inches in width and the carpet materials range from 36 to 54 inches. Woolen fabrics constitute the highest percentage of Ford's textile purchases, which vary in wool content from 60 to 100 percent according to model, with the balance consisting of nylon, cotton and rayon. The company has found that certain percentages of nylon mixed with wool impart better physical properties to its trim material. Such mixtures mean longer wear and greater durability, according to Mr. Farough.

William Barrow, Journal of Commerce, Jan. 31, 1948, p. 1-A.

#### AUTOMOBILE INDUSTRY: GENERAL MOTORS USE OF TEXTILES DISCUSSED

Fisher Body Division of General Motors, supplying more than 1,400,000 bodies for all five GM car divisions, used 10,400,000 linear yards of interior upholstery fabrics for closed bodies in 1948 and estimates it will use that amount again this year. Top material and interior lining for convertibles amounted to 1,600,000 linear yards. Interior upholstery includes sidewalls, seat cushions and cushion backs which consist of wool, mohair, nylon, rayon or cotton, or combinations of two or more of them. Coated cotton fabrics, used as shelf material along the bottom of doors, and for certain decorative purposes, was 2,700,000 linear yards; headlinings, 4,582,000 linear yards; sheetings, 3,108,000 linear yards; osnaburg, 1,684,000 linear yards; truck lining, 1,293,000 linear yards; narrow laces, used as wind cords, robe cords and decorative strips, 23,590,000 linear yards.

Journal of Commerce, Jan. 31, 1948, p. 1-A.

#### BAGS: NET COST OF FLOUR BAGS LESS FOR COTTON THAN FOR PAPER

Cotton and paper bag prices remained unchanged from January to February, but burlap bag prices declined. Comparative prices for new and second-hand bags, and differences are shown in table 6. It should be noted, however, that a price of \$140 per thousand for once-used cotton flour bags is guaranteed by at least one dealer in the New York area instead of the \$105 shown, which is for "bakery run" bags in any kind of condition. The net-cost to the user of using cotton flour bags thus is \$97 per thousand as compared with \$104.05 for paper bags.

#### BAGS: PAPER NOW HAS 60 PERCENT OF BAKERY FLOUR BAG BUSINESS

Over 60 percent of all bakery flour in the U.S. is now being packed in paper bags, according to Kenneth D. Lozier, vice-president of St. Regis Sales Corp. Manufacture of multiwall bags for flour jumped from 50 million in 1947 to more than 100 million in 1948, with the trend indicating a continued increase. "Independent tests by impartial laboratories over a long period show that there is no detectible difference in the aging qualities of bakery flour packed in paper as compared to cotton, jute, or grain sacks."

Journal of Commerce, Feb. 1, 1949, p. 2.



Table 6.- Midmonth prices of 100-lb. flour bags

(Dollars per thousand)

	February: : 1949	January: : 1949	February: : 1948	September: : 1945	February: : 1941
Prices, new, St. Louis 1/	:	:	:	:	:
Cotton.....	237.00	237.00	311.50	173.50	104.80
Burlap.....	225.30	234.25	238.95	149.85	112.40
Paper.....	114.05	114.05	108.65	87.40	72.25
Prices, second-hand, New York 2/	:	:	:	:	:
Cotton.....	110.00	110.00	160.00	110.00	42.50
Burlap.....	105.00	115.00	130.00	130.00	45.20
Paper.....	10.00	10.00	20.00	-	-
Difference 3/	:	:	:	:	:
Cotton.....	127.00	127.00	151.50	63.50	62.30
Burlap.....	120.30	119.25	108.65	19.85	67.20
Paper.....	104.05	104.05	88.65	87.40	72.25

1/ Cotton, 37" 4.00 sheeting cut 43"; burlap, 36" 10 oz. cut 43"; paper, 18 x 4-1/2 x 36-3/4"; all l.c.l. shipments. From a large bag manufacturer.

2/ For bakery run bags as given in Daily Mill Stock Reporter.

3/ New prices less second-hand prices.

#### BAGS: PROMOTION CAMPAIGN ON COTTON BAGS VERY SUCCESSFUL: RESEARCH OBJECTIVES LISTED

Promotional possibilities in cotton bag fabrics have only been touched, according to C. T. Murchison in a speech before the Textile Bag Manufacturers Assn. Last year's campaign "was and still is a phenomenal achievement which has recaptured the market for two or three hundred million yards of cotton goods." He said the future for cotton or other materials in bags will depend on how they meet certain tests: (1) relative cost, (2) responsiveness to promotion, (3) capacity for improvement, (4) profitableness of material in relation to economic order.

So great is the need for improvements of scientific research that the Bag Marketing Committee, at its last meeting, called attention to certain types of research which should begin immediately, including: (1) tensile strength as related to bag requirements; (2) resistance to abrasion; (3) factor of thread slippage in the handling of certain types of commodities; (4) more study on seam strength; and (5) more economical methods and machinery for filling the bags.

Journal of Commerce, Feb. 16, 1949, p. 14.

#### BAGS: MACY'S, SEARS PUSH ADS FOR RECLAIMED COTTON FLOUR BAGS

R. H. Macy Co. will launch a three-month advertising campaign Jan. 1 to establish a permanent retail demand for cotton bag towels among housewives in the New York area, the National Cotton Council made known here today. At the same time it was revealed that an advertisement in more than 6,000,000 Sears, Roebuck & Co. spring catalogs will offer house-wives over the nation an opportunity to purchase cotton dress print bags by mail order. The once-used cotton flour sacks will be sold in units of six, all bags in each unit being identical in pattern and construction. The cotton bags will be laundered and will be ready for sewing when the cotton thread stitching has been ripped out. Adequate stocks of the six-bag units will be maintained at all of the Sears regional mail-order branches and in all retail stores, it was said.

Journal of Commerce, Dec. 27, 1948, p. 12.



#### BAGS: T.B.M.A. PROMOTION PROGRAM VERY SUCCESSFUL

As a result of T.B.M.A.'s bag promotion program: (1) The production of bag fabrics and bags has been stepped up heavily from a low reached in the spring of 1948. In the 37-inch, 4.00-yard sheeting, consumption by bag manufacturers has risen steadily since the low point in May. Figures on this most widely-used flour bag fabric reveal that members of Textile Bag Manufacturers Association have used the following: In May, 3,077,000 yards; in June, 4,015,000 yards; in July, 4,426,000; in August, 5,580,000 yards; in September 6,062,000 yards; in October, 6,008,000; and in November, 6,370,000 yards. (2) Large bakers can save anywhere from 1¢ to 2¢ per bag because of reduced container cost. (3) The processing of bags has become a big industry. Firm prices are offered for 90-day periods. One large processor in the East reports that he handled 2,000,000 to 2,500,000 more bags last year than ever before and expects to be 5,000,000 higher in the next six months. (4) Retailers have enjoyed good business handling reprocessed bags. R. H. Macy & Co. on a one ad insertion late last year is reported to have sold about 1,000 dozen tea towels (made of flour bag fabrics). On the strength of reorder response the store started a new promotion this month. In the period between January 1 and 12 it is understood to have sold some 2,500 dozen towels.

Journal of Commerce, Jan. 17, 1949, p. 18.

#### CLOTHING: CORN PRODUCTS LAUNCHES COTTON PROMOTION CAMPAIGN

Corn Products Sales Co. is launching a big advertising campaign to sell Mrs. and Miss America on crisp fabrics in cottons. The campaign includes a fashion show at the Waldorf-Astoria Hotel, radio, and 16 magazines. It is called "Fashion Accent Crisp" and it is said to be designed to set "sales records for starchable cotton textiles."

Textile Bulletin, Jan. 1949, p. 37.

(This campaign is significant as an effort by a starch producer to protect its market by promoting cotton.)

#### CLOTHING: ENGINEERS AND OTHERS NEEDED TO DEVELOP FUNCTIONAL CLOTHING

In a talk before the 48th annual banquet of the Alumni Association of Philadelphia Textile Institute, Dr. Paul A. Siple said there have not been many engineers, who really know the science of engineering, who have managed to "get close" to textile engineering, especially the clothing end. During World War II, for the first time, physiologists and textile engineers "got together." He asked how large a portion of the textile industry had used physiologists to determine what clothing a man really needs. Use of geographers and architects also was needed. Paris and now California are strong fashion centers because of their ideal climate where the fashions can be worn comfortably during most of the year. People in other sections "suffer from the fashions set by Paris and California" because they live in regions of more severe climatic changes. "Some day there will be enough intelligent people to demand fashion designing adaptable in their particular areas."

Turning to development of cold-weather clothing, Dr. Siple pointed out that in low temperature areas textiles alone would not keep a man warm. Artificial heat also is required and this creates a problem of distribution, since not all men mimic fliers and trail electric wires after them, he pointed out.

Daily News Record, Jan. 31, 1949, p. 14.



## CLOTHING: AVONDALE DEVELOPS SUMMER SUIT FABRIC

Avondale is promoting a wrinkle-resistant cotton cord fabric, also said to be shrink resistant.. It is treated with American Cyanamid Co.'s "Supersol" resin. Daily News Record, Jan. 31, 1949, p. 26.

## ELECTRICAL INDUSTRY TO CONTINUE LARGE PURCHASES OF TEXTILES

More than 11 million dollars worth of textiles were used by the General Electric Co. during 1948 and comparable purchases are planned for the present year, the company reported. Stating that GE typifies the electrical industry, a company spokesman said that textiles are vital to the manufacture of hundreds of types of electric equipment, electric blankets, and in making certain types of plastics. Cotton, rayon, linen, nylon, and glass are the textiles most widely used. Largest single use for textiles is in insulation, where the textile supplies the necessary wear resistant qualities while varnish or lacquer provides the insulation. Cotton cloth, only one form of cotton used by GE, is consumed at a rate of millions of yards a year. Cotton yarn purchased in a single month approximates 150,000 pounds. Asbestos and cotton tape also are used in large quantity. In a single week nearly a hundred thousand yards of cloth may be used in covering cable. Impregnated with insulating material, the cloth is covered with lead for underground installation or with rubber. Miles of cord are used daily as braided covering for wire and cable. Glass was cited as an example of a material which has recently been put to many new applications. Now used as cloth, tape, and cord, it is specially suited as insulation on equipment which operates at a high temperature. Glass is used in motor windings, in the manufacture of magnet wire, and for tying motor windings. "Raw" cotton fiber is used as a reinforcement material in plastics, while cotton cloth is used in making laminated plastic sheets.

Journal of Commerce, Jan. 31, 1949, p. 1-A.

## PLASTICS: COTTON STRONG IN LAMINATES

The big tonnage of laminated plastics for wartime U.S. has not yet been replaced by equivalent peacetime production. Cotton is holding up this field as well or better than expected. Despite the early clamor and claims for newer and seemingly more glamorous competitive filler materials (for plastics) cotton will be difficult to supplant and possibly increasingly so in the near future, because of its ease of impregnation and its natural draping or drawing quality. For high pressure bearings, laminated cotton products stand up without softening or without abrasive action that have attended failures of substitutes. Lightweight muslins "have been found to be economical and entirely acceptable in place of a war-born inorganic textile in the fabrication of the fabulous 'honeycomb' panels for airplane floors and bulkheads or partitions. Cotton batts that have been newly developed with fibers "in random arrangements" and which are free of the "thick and thin" characteristics that have been objectionable in fiber batts in the past, are highly competitive with glass batts. Laminates are being used more heavily for textile machinery. Significantly, the limitations of resins now available rather than a lack of desired qualities in textile felt-making materials is the first barrier in developing new uses for laminates.

Charles K. Everett in Journal of Commerce, January 31, 1949, p.4A.

## SHOES: COTTON'S COMPETITIVE SITUATION IN SHOES DISCUSSED BY N.C.C.

A total of 118,070 bales of cotton were used in shoes in 1947, including 15,990 in uppers, 62,190 in linings, 15,130 in bottoms, 12,000 in laces, and 12,760 in thread. Research problems include:



Breathing qualities.- Statements are made that coated cotton fabrics are not suitable like leather for shoe uppers because they lack "breathing" qualities, but this is disputed by others who point out that cements are used for fastening linings to uppers, and that waxes to polish shoes seal the pores. Technical data are needed.

Fraying.- Consumption of coated fabrics in shoes would increase if fraying could be controlled at reasonable cost, possibly by different weave.

Special fabrics and weaves.- Fabrics are needed which will not show weave through coating. Fabrics specifically developed for Vinyl resin, rather than for pyroxylin and rubber coatings, as those now available, are needed.

Slipperiness.- Shoe soles of laminated cotton fabrics are said to have a "heavy" feeling; leather soles slip enough to prevent this.

Appearance.- Fabrics should be smoother and more lustrous.

Stability.- A relatively inexpensive method for obtaining more stability in bleached cotton fabrics used for linings in children shoes is needed.

Thread.- Strength-bulk ratio should be increased.

Mildew resistance.- Needed. May soon be available according to trade reports.

Cotton in the Shoe Industry, Frank A. McCord and Raymond Steinbach, National Cotton Council, September 1948.

#### SYTON PRICE REDUCED

Syton, a chemical aid to spinning, was reduced 25 percent in price in December. The new price is 15 cents a pound.

Textile Age, Jan. 1949, p. 94.

#### TIRE FABRIC PRICES UNCHANGED

Open market tire fabric prices remained unchanged from January to February.

Table 7.- Prices of cotton and rayon tire fabric,  
February 1 and January 1, 1949

Fabric	Cord	Fabric weight per sq. yd.	Price per pound		Price per sq. yd.	
			Feb. 1	Jan. 1	Feb. 1	Jan. 1
		Pounds	Cents	Cents	Cents	Cents
Passenger car tires						
Cotton Fabric.....	12/4/2	.86	72	72	62	62
Rayon fabric.....	1650/2	.67	66.5	66.5	45	45
Truck tires						
Cotton fabric.....	12/4/2	.86	1/	1/	1/	1/
Rayon fabric.....	1100/2	.54	69	69	37	37
Rayon fabric.....	2200/2	.81	65	65	53	53

1/ No quotation received.

Based on reports from independent rubber companies for fabric constructions most heavily used.

TIRES: 1949 TRUCK TIRE REPLACEMENT MARKET EXPECTED TO KEEP PACE WITH 1948, BUT WITH INTENSIFIED COMPETITION.

"For a year or more truck tire replacement sales have been slowing down, and the rough and tumble tempo of selling has been accelerating. Sears and Montgomery



Ward were first to cut prices, by 5%, with Sears' current catalog offering a 8.25 x 20 10-ply tire at \$49.95 against former "list" of \$56.95. Goodrich cut prices 1-1/2 to 10% in January but the others in the Big 4 had not followed by January 28th, though many of their dealers were absorbing multiple discounts. In 1948, more than 14 million truck and bus casings were produced, almost double the 7.9 million of 1940. About 8 million of the 1948 output was replacements. The 1949 replacement market is expected to keep pace with 1948, but with a battle of discounts said to range up to as high as 31% of the original price. Truck and bus tires accounted for 24 percent of all rubber used in the nation last year and rivaled passenger car tires in dollar volume.

Wall Street Journal, Jan. 28, 1949, p. 1.

#### TIRE CORD MILL LAYS OFF 250

Winnsboro, S. C.—Approximately 250 employees of Winnsboro Mills, textile plant of the U. S. Rubber Co., were laid off Jan. 13 for an indefinite period, because of a decrease in the demand for cotton tire cord, Plant Manager M. A. Kirkland announced. The curtailment affects only employees of the cotton processing department. The rayon processing department, Ustex department, and other departments will continue normal operations. "The installation of looms and expansion in the production of byproducts at Winnsboro," he promised, "will make it possible to resume full scale operation in the cotton processing department."

Southern Textile News, Jan. 15, 1949, p. 3.

#### UNWOVEN FABRICS: WEST POINT SETS UP NEW DIVISION TO MANUFACTURE

West Point Manufacturing Co. has set up a new Lantuck Division to manufacture "Lantuck" bonded fabric, with Dr. Herschel Cudd as director and Joe Phillips as superintendent. "While other bonded fabrics have been made in the past, it is believed that none yet have approached the unique qualities found in Lantuck." This material was developed by the Research Division after an initial survey with Wellington-Sears.

Southern Textile News, Feb. 5, 1949, p. 9.

#### COMPETITIVE MATERIALS

NO NEW SYNTHETIC FIBERS EMERGED IN 1948. OUTSTANDING DEVELOPMENTS IN TEXTILE MACHINERY AND END USES DISCUSSED.

No complete new fiber, synthetic or otherwise, emerged during 1948. Carbide and Carbon Chemical Co. continued its policy of testing the market for Vinyon N and endeavoring to interest manufacturers in spinning this material, but it's poor shape stability in hot processing, difficulty of dyeing, and high price (of same order as nylon) were drawbacks and no one responded. Orlon was claimed by DuPont to have the most silky handle of any synthetic fiber yet developed and, in staple form, to have exceptional bulking power, high thermal insulation, and wrinkle recovery properties; but it is more hydrophonic than nylon, hence dyeing presents difficulties which, if not overcome, will inhibit its use. DuPont was said to be conducting research on Fibre "V" (Terylene), but no plans for production had been announced. American Viscose Corp. announced laboratory-scale production of polyethylene monofilament only in 1948, and is understood to still be working on it. A Swiss rayon company announced new types of viscose rayon with reduced swelling in water, thought to be modified by a formaldehyde process.

Machinery developments included (1) American Viscose's "Filamatic" continuous spinning process; (2) Pacific Mills' tow-to-top process, to be manufactured by Whitin; (3) Warner & Swasey's development of Sulzer loom, stated to require



further development before being ready for market. Monsanto Chemical Co. was said to have had a far greater response in England from their "Syton" colloidal silica for use in spinning to produce stronger or less-twisted yarn, than expected. Dan River's bonding process was said to have given rayon yarns decreased stretch, improved tensile strength, and better adhesion to rubber, although it was developed primarily for cotton.

End use developments included capture by rayon of 25% to 30% of market for light-weight suits, steady development of use of nylon for nylon tricot lingerie and its use for socks, carpets, and transportation upholstery. In England, polyvinyl chloride monofilament was used for upholstery and screening. Use of glass fiber for curtains was announced, but brittleness and present impossibility of dyeing to "other than a few unattractive shades coupled with its inert metallic appearance will almost certainly limit its application in this field, and it is probably to industrial uses that it looks for its biggest market." Bonded fabrics came in for less attention in 1948 than in 1947, but announcements were made of machinery to cross-lay the webs, giving two-dimensional strength.

From a confidential report.

#### GLASS FIBER: GLASS CURTAINS TO GO ON SALE THIS SPRING

Coronized glass curtains are the first fiberglas textiles to be used in the home. They will be for sale throughout the country by March or April. Colors are white and egg shell, imparted by inorganic pigments glazed on surface at extremely high temperatures. A housewife can wash a pair and hang them again in 7 minutes.

Journal of Commerce, Jan. 31, 1949, p. 40.

#### NYLON SEEN AS IDEAL FIBER FOR GREAT BRITAIN BECAUSE IT CAN BE PRODUCED ENTIRELY FROM DOMESTIC MATERIALS AND REQUIRES NO FOREIGN EXCHANGE

"Although the basic nylon inventions were made in the United States, the nylon industry, being essentially based on coal by-products, is peculiarly fitted to English conditions. Indeed, nylon yarns made in Great Britain, to a greater degree perhaps than any other textile material, is a British product, and since it is produced entirely from indigenous materials, it is likely to prove singularly immune from the vicissitudes of the foreign raw material markets, while used in products for the home and overseas markets it earns or saves the nation dollars and other valuable foreign exchange."

Silk Journal and Rayon World, Oct. 1948, p. 35.

#### NYLON: ALL-NYLON SHIRT ANNOUNCED

Sherman Shirt Creations, in a double page advertisement in the Daily News Record, announces development of a 100 percent porous nylon shirt. It is said to be porous enough to permit free passage of air in and out, and to not require ironing. No price is given.

Daily News Record Feb. 7, 1949, p. 14.

#### NYLON SHIRTS

Sol S. Sherman said he can supply only 5 percent of the demand for his nylon shirts. He said it is appealing to lower income bracket consumers because in 3 months time the cost of the shirt, \$8.95, is regained through saving accrued in laundering.

Journal of Commerce, Feb. 16, 1949, p. 14.



## NYLON: NO DROP IN ENGLISH PRICES FOR PRESENT

British Nylon Spinner's new-Pontypool plant has begun production, but 15 months will elapse before it reaches its capacity of 10 million pounds a year. Prices will not be cut, nor output expanded, beyond present one-third of capacity, until this summer. The directors pointed out that the question of price and quality are dependent on assurance of plentiful supplies of raw material, not to be reached till completion of Billingham nylon polymer factory of Imperial Chemical Industries.

Silk Journal & Rayon World, Nov. 1948, p. 36.

## NYLON: NEW RUG FOR AIRCRAFT ANNOUNCED

Alexander Smith & Sons Carpet Co. yesterday reported the successful development of a new nylon-faced carpet designed specifically for aircraft installation, called Airborne. It is said to weigh 2.4 pounds per square yard against 3.6 pounds for other desirable types, and to have extremely high wear resistance. Capital Airlines have already placed a large order. The lighter weight will result in a saving of over \$7,000 a year per Constellation model plane, based on a yearly operating cost of \$100 per pound of weight per plane, it was declared.

Journal of Commerce, Jan. 18, 1949, p. 15.

## RAYON PRODUCTION REACHES NEW HIGH IN 1948

U. S. production of rayon totaled 1,124 million pounds compared with 975 million pounds in 1947 and 471 million pounds in 1940. Of total U. S. yarn (excluding staple) shipments of 853 million pounds in 1948, 250 million pounds went to tire manufacturers, 101 million pounds to knit goods, and 465 million pounds to woven goods. In 1948, for the first time, more acetate yarn was used in woven goods than viscose yarn, and acetate yarn's total for all non-tire uses was about equal to that of viscose yarn. Total world production of rayon in 1948 was said to be 2,450 million pounds, comparing with 1,398 million pounds in 1945 and a peak of 2,817 million pounds in 1941. The United States now accounts for 46 percent of world rayon production, compared to 19 percent in 1940.

Rayon Organon, Feb. 1949, p. 17.

## RAYON: ACETATE STAPLE HITS BUYERS MARKET

Producers of acetate staple are having some difficulty marketing their product. Yet acetate staple capacity is expected to expand from 72 million pounds in November to 105 million by July 1949. Increased capacity is from technological advances by all producers which will accelerate spinning speed plus Celanese's new Celco plant. Producers are experimenting with new uses including rugs. A new vat dye process has been developed which may be important.

Journal of Commerce, Jan. 11, 1949, p. 14.

## RAYON: USE IN RUBBER INDUSTRY EXPANDS

The place of rayon in mechanical rubber goods is fast becoming as well established as in tires. "Normalizing" rayon cord to reduce stretch and predipping to promote the bond between the fiber and rubber has been adapted to rayon with gratifying results on V-belts and rubber hose. Recent development of high speed knitting machines for rubber hose reinforcement has made possible use of undipped rayon cord in several large volume applications such as garden, auto radiator, and heater hose. Large, 10-lb. cones of no-twist 2200 denier yarn are used for this purpose. Rayon flock is now being produced in over 20 brilliant



colors for application in interior of automobiles, airplanes, and houses, for covering jewelry and candy boxes, millinery, shoes, radio cabinets, tables, toys, etc., and is now one of the largest outlets for viscose rayon tow. Viscose rayon has found a place in paper making in long-fibered, light weight papers possessing excellent filtering, absorbent, and transparent qualities. High-tenacity rayon also is being used as a reinforcing network between two sheets of heavy kraft paper which is glued together, thus increasing bursting strength and tear resistance. Use of fine denier, long staple, crimped viscose as a carrier yarn for asbestos began during the last few months.

Howard E. Shearer, American Viscose Corporation  
in Journal of Commerce, Jan. 31, 1949, p. C1.

#### RAYON: NEW PROCESS FOR MAKING RIBBONS DEVELOPED

A Luton, England firm has invented a process for ribbon making which may revolutionize the ribbon industry. Making ribbons from thermoplastic textile fabrics such as acetate and nylon now amounts to 12 million yards annually, 90 percent of which is for export purposes. Whereas under old methods one highly skilled weaver manned multi-shuttle looms that produced 4,700 yards of ribbon in a working week, the new machine produces 108,000 yards of ribbon in the same period and requires no skilled operator other than one who can be trained in a few weeks. The new invention consists of revolving and adjustable steel cutter discs heated to a high temperature according to substances and composition of fabrics. The fabrics are mechanically drawn between heated cutter discs and counter rollers which, by means of applied pressure, sever fabrics by melting filament threads of warp and weft thus simultaneously fusing them into an integral whole. Resulting strips are ribbons with fast sealed and unfrayable edges. This process, known as the "Clayson" method, has been patented in the United Kingdom and a number of overseas countries by Charles Clay & Sons, Ltd.

Journal of Commerce, Jan. 17, 1949, p. 10.

#### RAYON PROGRESS IN WASHABILITY AND GAS FADING HELD DISAPPOINTING BUT SUCCESS IN SIGHT

Processing in rayon stabilization, or in the processing of rayon to make it completely washable and shrink resistant comparable with cotton fabrics, has been disappointing. Research continues on this problem, but an entirely satisfactory process for mill treating of fabrics to make them "cotton washable" is not yet available. Recent reports indicate some suppliers are close to a solution and we may well expect 1949 to see some truly washable rayons. This will open up a market for rayon in sheeting, shirtings, and damasks. Gas fading continued to be a problem, but some new finishes were introduced during the latter half of the year that were promising. Use of synthetic resins as a size for acetate and acetate-viscose warps made real progress in 1948, improving quality, increasing uniformity, and reducing the problem of designing and dyeing.

D. H. Powers in Journal of Commerce, Jan. 31, 1949, p. 10B.

#### RAYON: DUPONT CHANGES BASIS OF ACETATE PRICES

DuPont is reported to be changing the basis of its acetate rayon prices from f.o.b. plant no freight allowed, to a freight allowed basis, as it was before the Supreme Court's decision, but viscose rayon prices continue on a no-freight-allowed basis.

Daily News Record, Feb. 4, 1949, p. 1.

(Celanese, leading acetate rayon manufacturer, never priced on a freight allowed basis.)



RAYON: BRITISH EXPORTS NOW 3-1/2 TIMES PREWAR

Great Britain is believed to have reached its goal of exporting 3-1/2 times as much rayon, in quantity, in 1948 as prewar. By the summer of 1948 value of exports was 8 times prewar.

Silk Journal and Rayon World, Nov. 1948, p. 60.

SARAN: NEW APPLICATIONS REPORTED

The original market for saran materials was automotive seatcovers, but the fabrics have now been accepted in other fields. New uses have been found in the manufacture of furniture, luggage, and shoes. It is lightweight and durable for luggage, and is claimed to be satisfactory as a woven material for shoe uppers and innersoles. Place mats have been made which are sealed on four sides, have wide color ranges, and ready cleanability. Insect cloths, orchid shade cloths, battery separators, mattress pads and rubber liner fabric have been added to the growing list of saran uses. Woven saran, in an open mesh construction, approximately that of insect screen cloth, has been successfully used by rubber companies as a liner cloth. It replaces both metal and cotton liner cloths and prevents the rubber layers from sticking to each other in the roll. It is also used as a protective covering over clam beds to prevent the small clams from being destroyed by their natural enemies.

Journal of Commerce, Jan. 31, 1949, p. 60,  
Article by Joseph F. Rohs

SARAN: USE FOR SEAT COVERS AND SHADE CLOTH GROWS

Velon in extruded form has been very active during the past six months. Fabric woven of Velon yarn has increased in popularity for automobile seat covers and public transportation upholstery, in part because of its remarkable long-wearing qualities. The Long Island Railroad, after thorough experiments and test installations, is using this fabric for the upholstery of their new double-decker coaches. The fabric is now being woven of 12, 10 and 8 mil. yarns, although experiments are being conducted constantly with 5 mil. and even finer. Window screening of Velon filament is rapidly increasing in acceptance because of its non-rusting and long wearing features. Tobacco shading promises to be merely the beginning of agricultural uses of plastics. Inquiries have been received from truck gardeners, fruit growers and many other farmers throughout the United States, as well as from producers of shade-grown coffee in Central and South America.

Journal of Commerce, Jan. 31, 1949, p. 30, article by  
Roger S. Firestone, President, Firestone Plastics Co.

WOOL: USDA RESEARCH OUTLINED

USDA research on wool includes (1) study of relationships between physical properties and characteristics of different types and grades to improve grading (PMA); (2) study of improvements in skirting and packing wool (PMA); (3) experimental tagging (removal of stained parts of fleece) of clips to determine if it is worth while (Farm Credit); (4) analysis of nation's wool requirements in relation to domestic production (BAE); (5) studies of cleaning and scouring of fleeces for removal of grease and dirt.

Southern Textile News, Jan. 29, 1949, p.42.



#### WOOL: CLUET PEARBODY STARTS CAMPAIGN ON WOOL SHRINKAGE PROCESS

Cluet Peabody is ready to start a big promotion campaign on its Sanforlan wool-shrinkage process. They are going to issue "processor's licenses" to companies who apply the treatment and "trade-mark licenses" to makers of finished garments. "We will tell the public, in loud-ringing tones, that the wool in a garment with 'Sanforlan' on the label will not mat or felt." This process was developed in England by Stevenson (Dyers) Ltd. and Wolsey (Ltd.), who have processed 10 million pounds of wool with it since 1943. An additional 2 million pounds has been processed in America. Cluet Peabody has the license for this process in United States and Canada.

Daily News Record, Feb. 4, 1949, p. 16,17.

#### WOOL: AIRCRAFT INDUSTRY USES WOOL FOR FLAME-RESISTANT PROPERTIES, ETC.

According to Douglas Aircraft Co., 100 percent woollens are used in transport aircraft interiors because of their durability and flame-resistant properties. Broadcloth and gabardines are preferred for curtains and ceilings "to create a luxurious atmosphere and because their porosity aids in soundproofing." Bedford cord or looped pile textures are used for seat covers, but nylon fabrics are coming into use. A 4-engine transport (DC-6) requires 50 square yards of soft fabrics for window curtains, 200 square yards for seat covers, 513 square yards for sleeping berth curtains and headings; and 250 square yards of vinyl-coated textiles, and 75 square yards of carpeting. Apparently 150 large transports were delivered in the United States in 1948, with the same number expected for 1949.

Journal of Commerce, Jan. 31, 1949, p. 4A.

#### TEXTILE RESEARCH AND EDUCATION

##### WOOL BUREAU ESTABLISHED TO PROMOTE WOOL

Wool Bureau, Inc., is being established in New York by American and foreign wool interests to conduct a program of research, education, and promotion. Administration of the Bureau will be under direction of an executive committee including F. Eugene Ackerman, executive director of American Wool Council, chairman; W. Francis Fitzgerald, acting managing director of International Wool Secretariat in North America, who will be president of the Bureau; and Earl Newsom, Earl Newsom & Co., American representatives of the International Wool Secretariat of London. The American Wool Council and the International Wool Secretariat in this country will continue as liason agencies with their underlying wool organizations, but their previous functions in wool promotion and their operating staffs will be transferred to Wool Bureau, Inc.

Daily News Record, Feb. 3, 1949, p. 1.

##### EXPENDITURES ON RESEARCH IN RAYON INDUSTRY

American Viscose Corp. was said to spend about 1.5 percent of its sales income on research in 1945, and at that time was expanding its textile research department. DuPont was reported to spend about 3 percent of its sales income on research in 1946. According to Henry B. DuPont, in the Daily News Record for October 18, 1948, DuPont has spent more than \$30 million on rayon research since the industry's beginning. This, we estimate, would amount to about 2.5 percent of rayon sales. Celanese Corporation spent \$2,284,871 in 1946 and \$2,825,119 in 1947 on research, or 1.7 percent and 1.6 percent of sales income, according to their annual reports. In the report for 1947, the cumulative total spent since 1925 was said to be more than \$17,400,000. American Bemberg



has spent upwards of \$1,000,000 on development of a new spinning process since 1944 (1947 report). Its expenditures for research increased from \$132,700 in 1943 to \$615,000 in 1948, with the 1947 expenditure of \$585,000 equal to 4.4 percent of sales. (Prospectus of Office of Alien Property). North American Rayon Corp.'s expenditures for research increased from \$140,000 in 1943 to \$373,000 in 1947, equal to 1.5 percent of sales income during that year. Expenditures for research were expected to total \$500,000 in 1948. Until November 1947, this corporation, and American Bemberg, had free use of technical information developed by A. K. U., the Dutch holding company, which still owns American Enka. Another large rayon producer, Tennessee Eastman, is owned by Eastman Kodak, which also has a considerable research program, but its expenditures on rayon are not known. In all, it is not unlikely that the rayon industry spends about 1.7 percent of its sales income on research, which would have amounted to as much as \$10 million in 1947.

#### COLUMBIA TO OPEN FIVE YEAR TEXTILE FLAMMABILITY WORK

A five year project in the flameproofing of fabrics which, it is hoped, will virtually eliminate possibilities of disaster like that of the Coconut Grove fire in 1942 in Boston, will get under way soon in the chemical engineering laboratories of Columbia University. The project is jointly sponsored by QM Corps of U. S. Army and the Office of Naval Research, and will be directed by Dr. James M. Church, associate professor of chemical engineering. It is planned to incorporate flame-proofing agents into nylon and other fabrics, instead of treating the fabrics externally. "There is a great difference between flame-proofing and fireproofing," he said. "Fireproofing is out of the question as far as fabrics are concerned because the materials of which they are composed are combustible."

Journal of Commerce, Jan. 18, 1949, p. 15.

#### NORTH CAROLINA TEXTILE SCHOOL TO GRADUATE 272

North Carolina School of Textiles will graduate 272 members of the senior class between now and August, constituting nearly a third of the country's crop of 900 textile graduates. G. H. Dunlap is director of the school's "Placement Bureau."

Southern Textile News, Feb. 5, 1949, p. 16.

#### D. H. POWERS IS TRANSFERRED

Monsanto Chemical Co. has announced the transfer of Dr. Donald H. Powers from the company's Merimac Division textile department in Boston to the General Development Dept. in St. Louis. The announcement was made here by Dr. Carroll A. Hochwalt, Monsanto's vice-president and coordinator of research.

Southern Textile News, Jan. 15, 1949, p. 4.

#### NEW CLEANING AND DYEING LABORATORY OPENED

The National Institute of Cleaning and Dyeing has just opened a million-dollar laboratory in nearby Silver Spring, Md. Containing 50,000 square feet, it has sections for testing the effect of solvents on fabrics, another for mothproofing compounds, a short term research unit, analysis departments for garments and furs, and one for cleaning and treatment of floor coverings. Dr. J. C. Alexander is chief chemist.

Daily News Record, Feb. 15, 1949, p. 30.



COTTONSEED AND PEANUTS

OIL PRICES CONTINUE TO DROP: BUYER'S MARKET SEEN FOR 1949

Following substantial declines during December and January, prices of most fats and oils were at the lowest since the end of price ceilings in October 1946.

Stocks of cottonseed and soybeans on January 1 were well above a year ago, and an increase in animal-fat production was in prospect for Spring.

Fats and Oils Situation, Feb. 11, 1949, p. 3.

Total production of fats and oils from domestic materials will be 10.5 billion pounds in 1948-49, 675 million pounds higher than in 1947-48. The industry is now in a buyer's market reflecting feeling that (1) general improvement in world supplies will continue; that oilseed plantings next Spring will be high and weather conditions favorable; (2) that indicated 10 percent increase in Spring pig crop will materialize; and (3) that more normal conditions of purchasing will be felt both here and abroad. A marked shift in any of these factors might change the entire situation, as fats and oils are among the most sensitive of all commodities.

Fats and Oils Industry Report, U.S. Dept. of Commerce, Jan. 1949, p.5.

Table 8.- Prices of vegetable oils and meals

	February 1949	January 1949	December 1948	February 1948	September 1946
	Cents per pound				
OILS 1/	Feb. 21				
Cottonseed oil.....	13.5	15.3	17.1	22.2	12.5
Peanut oil.....	15.5	17.1	18.1	23.8	13.0
Soybean oil.....	12.5	14.7	17.3	19.6	11.8
Corn oil.....	13.5	16.2	17.8	22.6	12.8
Coconut oil 2/.....	14.0	15.9	23.2	23.5	11.1
Linseed oil 3/.....	28.8	28.8	29.0	30.6	17.8
Tung oil 4/.....	22.0	22.7	23.8	26.2	39.0
	Dollars per ton				
MEALS 5/	Feb. 12				
Cottonseed meal 6/...	56.00	66.00	72.12	84.00	62.75
Peanut meal 7/.....	73.00	66.80	67.62	88.60	67.25
Soybean meal 8/.....	62.00	74.30	77.68	89.00	66.00
Coconut meal 9/.....	68.50	70.60	75.60	83.90	59.70
Linseed meal 10/.....	63.00	78.60	77.62	91.50	59.25

1/ Crude, tanks, f.o.b. mills except noted. From Oil Paint and Drug Reporter (Daily quotations) and from Fats and Oils Situation, BAE (monthly quotations).

2/ Crude, tanks, Pacific Coast.

3/ Raw, drums, carlots, N. Y.

4/ Drums, carlots, N. Y.

5/ Bagged carlots, as given in Feedstuffs (daily quotations) and Feed Situation BAE (monthly quotations).

6/ 41 percent protein, Memphis

7/ 45 percent protein, S. E. Mills.

8/ 41 percent protein, Chicago

9/ 19 percent protein, Los Angeles.

10/ 32 percent protein, Minneapolis, prior to May 1947; 34 percent protein after that date.

11/ Preliminary.



## COTTONSEED HULL PROCESS DEVELOPED

Dr. Henry E. Shiver, Converse College, Spartanburg, S. C., has developed a mechanical process to separate pentosans from cottonseed hulls, for use in making furfural. Rights to it have been sold, and existing machinery is being adapted for extraction.

Times Picayune

## DRY CASEIN OUTPUT IN 1948 DROPS 61 PERCENT

Annual production of dry casein for 1948, totaled 14,110,000 pounds, a decline of 61 percent from 1947. The 1948 annual output is the lowest in the last quarter century, except for 1945. December production was estimated at 615,000 pounds, down 23 percent from a year earlier and 36 percent from the five-year December average. Manufacturers' holdings of 1,610,000 pounds on December 31 were 26 percent higher than a year earlier, but still the second lowest for the date on record.

Daily News Record, Feb. 9, 1949, p. 31

## VICARA PROPERTIES AND USES DISCUSSED IN NEW BOOKLET

Virginia-Carolina Chemical Corporation has released a booklet on Vicara, with sections on "Vicara, the fiber that improves the blend," "Vicara is easy to use," "How Vicara was born," and "Properties of Vicara." It is stated unconditionally as made from corn. It is said to require no retooling and no new dyes, and "it is not necessary to 'baby' Vicara through your plant until you learn how to handle it.....To a blend with cotton, Vicara brings drape, shape, softness, elasticity, better handle and feel, and mildew resistance. Vicara also adds these qualities to rayon blends and makes it easier to get dye effects.....With nylon, Vicara adds absorbency, softness, and drape....Used in worsteds and wool knits, Vicara is softer than wool, just as warm, and more economical. Vicara adds drape to the fabric and helps it to resist wrinkling and creasing. It also adds shape and loft. Vicara is odorless and, when wet, does not have the 'smell' associated with wet wool." It is non-itching, etc.

In describing how it is made, it is stated that zein protein molecules are uncoiled or "denatured," involving treatment with a caustic soda solution. They are then forced through spinnerettes into an acid-precipitating bath. The fiber is then partially cured (tied), stretched, and then completely cured (tied to the proper degree of tightness) by a series of hardening baths and treatments. Uncombined chemicals are removed by vigorous washing. The tow (which contains up to 270,000 filaments) is dried, textile-processed and cut into staple." The material travels 14 miles through the various operations. Vicara is said to have an elasticity comparable to animal fibers, a dry tenacity of one gram per denier, with elongation of 42 percent dry and 50 percent wet. Wet strength is not given. It is said to be as water repellant as wool, but this does not interfere with warm wet processing such as washing, dyeing, or scouring, because this property is not apparent at temperatures below 110° F. It can be boiled for many hours without injury and after five launderings at the boil, test fabrics show less than 2-1/2 percent shrinkage. It is non-felting. Vicara fibers are supplied in any staple length from 1/2 to 6 inches and in deniers from 2 to 4. It is packaged in 300 to 500 pound bales and can be supplied in tow form if desired. Samples of Vicara fiber and of a fabric with Vicara in the blend are included with the booklet.



## R I C E

### WORLD PRODUCTION AGAIN EQUAL TO PREWAR

The world rice harvest of 1948-49 (August-July) approximates prewar average production for the first time since World War II. The crop of 7,470 million bushels is a pronounced increase over the 7,060 million in 1947-48 and slightly in excess of the 7,450 million bushels average yearly production during the prewar (1935-36/39-40) period. This season's good harvest is due to favorable weather in many countries and to an increase in the area planted. The largest gain in production occurred in Asia. Record crops, however, were produced in Africa, North America, and Europe. South America's output is expected to exceed that of last year, but will be less than the peak production of 2 years ago.

Foreign Crops and Markets, Vol. 58, No. 6, Feb. 7, 1949, p.86.

## L I N T E R S   A N D   C E L L U L O S E

### NO CHANGE IN LINTERS PULP AND WOOD PULP PRICES

Cellulose prices remained unchanged during the month (table 9).

Table 9.- Average annual price of purified linters and dissolving wood pulp, 1946-47 and monthly quotations August-December 1948 and January-February 1949

(Cents per pound)					
			Wood pulp 2/		
	Purified	Standard	High-Tenacity:	Acetate	
	linters 1/	viscose	viscose	& cupra	
		grade	grade	grade	
1946.....	9.50	5.60	5.85	6.15	
1947.....	16.30	7.03	7.44	8.04	
1948, August.....	10.25	8.20	8.70	9.50	
1948, September.....	9.60	8.20	8.70	9.50	
1948, October.....	9.35	8.20	8.70	9.50	
1948, November.....	9.35	8.20	8.70	9.50	
1948, December.....	9.35	8.20	8.70	9.50	
1949, January.....	9.35	8.20	8.70	9.50	
1949, February.....	9.35	8.20	8.70	9.50	

1/ Weighted averages, 1946-47. On 7 percent moisture basis, f.o.b. pulp plant. Average freight to users is 0.5 percent per pound. Prices supplied by a producer.

2/ Average of average monthly prices, 1946-47. Compiled from Rayon Organon and from letters to us from producer. Wood pulp prices are 10 percent moisture basis, f.o.b. domestic producing mill, full freight, and 3 percent transportation tax allowed, Dec. 1, 1947 on; freight equalized with that Atlantic or Gulf port carrying lowest backhaul rate to destination plus 3 percent backhaul charges, prior to December 1.

### GREATLY INCREASED PRODUCTION OF DISSOLVING WOOD PULP NOW ON WAY

During 1948, construction of one dissolving plant was initiated, plans for building two more were announced, and land surveys for two more were reported. U. S. dissolving pulp output was 421,924 short tons in 1948. Imports, mainly from Canada totaled 239,842 tons and exports were 14,665 tons, leaving a new pulp supply for 1948 of 647,101 short tons or 1,294,202,000 pounds compared



with rayon production last year of 1,100,000,000 pounds. If two of the 5 pulp plants are in operation by the end of 1941, there will be an additional 250 million to 300 million pounds of dissolving pulp produced at that time. The American Viscose plant in Alaska, expected to be in production by the summer of 1952, should add output of another 180 million pounds annually.

Journal of Commerce, Jan. 31, 1949, p. C1.

Table 10.- Dissolving wood pulp: Production, exports, imports and quantities made available for consumption, U.S., 1939-48

(Tons)				
	Domestic production 1/	Imports 2/	Exports 2/	Available for domestic con- sumption 3/
1939.....	4/	88,052	48,232	4/
1945.....	4/	143,802	13,033	4/
1946.....	4/	202,192	8,491	4/
1947.....	324,927	248,606	10,389	563,144
1947, January-November:	297,859	225,519	9,967	513,411
1948, January-November:	330,699	227,314	14,492	543,521
1947, December.....	27,068	23,087	422	49,733
1948, October.....	29,093	17,273	576	45,790
1948, November.....	32,749	21,003	1,519	52,233
1948, December.....	26,057	4/	4/	4/

1/ Sulphite, bleached, dissolving grades. From Facts for Industry, Pulp and Paper Manufactures, Bureau of the Census.

2/ Sulphite, bleached, rayon and special chemical grades. Data from foreign commerce statistics of the United States, Bureau of the Census.

3/ Production plus imports less exports.

4/ No data.

#### PULP INDUSTRY IN SOUTH QUADRUPLED IN TEN YEARS

Charles A. Connaughton, Director of the Southern Forest Experiment Station in New Orleans released a report showing that the South now has half the total U. S. pulp mill capacity and cuts 45 percent of the pulp wood. William S. Stover who aided in compiling the report, said there are 55 pulp mills in operation, with daily capacity of about 18,500 tons of finished pulp. Since the report was finished, five new mills went into production--two at Macon, Ga., and one each at Savannah, Ga., Pensacola, Fla., and Natchez, Miss. A mill now is under construction at Childersburg, Ala., and plans for two others have been announced. The mills, the report said, drew virtually all their wood from southern forests. In 1947, southern farmers and wood workers cut 9,241,000 cords of pulp wood. That compares with 20,653,000 cords in the entire country. Delivered at mill, it was worth about \$124,000,000. Biggest pulp wood producer in the South was Mississippi, with 1,279,100 cords. Georgia was a close second with 1,215,200/and Virginia placed third with 1,025,400 cords. About 85 percent of the South's 1947 pulp wood cut was pine, Louisiana topped the southern states in pulp-mill capacity.

Daily Mill Stock Reporter, Feb. 2, 1949, p. 1.



